

therefore be regarded as abortive receptacles. In the elongated receptacle, straight spiral vessels are met with. A spiral vessel never extends to the fruit. The parts which Sprengel years ago, Blume and Presl at present consider to be male organs of fructification and indistinctly figured, have been more accurately examined by Prof. Link, and illustrated by drawings. They are long hollow filaments, separated by septa into articulations, generally simple, rarely ramified; the last articulation is thicker, and filled with a delicate granular mass. It may also at times be observed that this mass is exuded at the last articulation, and surrounds this as a crust. These parts are frequently longer than the capsules, and are easily distinguished from the young capsules. It is certainly probable that they are the stamina of ferns, and Prof. Link has indeed found them, after frequent search, in most of the ferns which he subjected to microscopical examination. The germination of ferns is simple; the shell of the seed bursts regularly or irregularly, out of which the embryo grows forth in a foliaceous expansion, which subsequently first forms a bud, whence the plant proceeds in the form which it retains. This mode of germination presents, therefore, a similarity to that of monocotyledons, only that here the evolution of the embryo is a state, and one of rapid transition.

POTAMOGETON PRÆLONGUS.

This rare plant occurs plentifully in the river Waveney, which divides Norfolk from Suffolk, in the neighbourhood of Harleston and Bungay, where I gathered it in June last. The only other station, to the south of the Tweed, is in ditches near Caversham Bridge near Reading, where it was found by Mr. Borrer in May 1836.—CHARLES C. BABINGTON.

THE COCOS DE MER.

The singular plant known by the above title was for many years a source of inquiry, and gave rise to some most absurd and monstrous conjectures. Its gigantic fruit was occasionally picked up floating at sea, and sometimes carried by the currents to various shores of the Indian ocean. Astonishing virtues were attributed to it, and were supposed to be communicated to medicines drunk out of its

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capacious shell. It is stated that as much as four hundred pounds sterling have actually been paid for a single nut.

The colonization of the Seychelles Archipelago by the French under M. de la Bourdonnais, the talented and patriotic governor of Mauritius, set the matter at rest. The Cocos de Mer was found growing in the islands of Praslin and C rieuse, whose mountains were abundantly covered with this stupendous plant. It is a palm, and like several other members of that family, the male and female flowers are found on different individuals. Its stem rises to the height of from 90 to 100 feet, and is crowned with the most superb leaves that can be imagined, which form a kind of pent-house around it as impervious to water as if covered by a roof.

The leaves exactly resemble in form those of the fan-palm, but their dimensions are vastly superior. There are many of them that, measured from the base of the stem, are 20 feet in length, and their ample folds cover a width of from 10 to 12 feet. It is not till it has attained the age of from 20 to 25 years that it begins to bear. The enormous drupes, hanging in clusters of four or five, are so heavy, that a plant of less strength would give way beneath a single bunch, and they hang three or four years before they are ripe enough to fall. Thus although only one fruit branch is put forth in the year, the produce of three or four seasons burdens the stem at a time, the aggregate weight of which is very considerable.

Description cannot do justice to the beauty of these forests, nor convey an adequate idea of the singular fruit they furnish. The nuts are mostly double; but triple, quadruple, and sometimes, though very rarely, quintuple specimens are found. When green they contain a sweetish jelly-like substance of a refreshing quality. But when ripe the kernel is as hard as dry beach wood, quite white, and of a somewhat silky grain. They are left in a marshy spot to rot, a process which requires six or eight months before the shell can be emptied. They are applied to various uses, being very strong and light. Simply bored at the end they serve as very convenient buckets and kegs, which are in general use among all the inhabitants of the group of islands in which they are found; many of them hold upwards of three gallons. Many thousands of the shells, sawed in half, are sent to Mauritius and Bourbon, where they are universally employed by the blacks for holding food and water; they form also the best vessels that can be devised for baling out boats. The leaves are as good a covering for a house as shingles; a roof well thatched with them lasts ten years without any repair. They are also employed, when young and white, for a great many purposes; hats,

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bonnets, baskets, fans, flowers and many other articles being manufactured from them.

It is a very remarkable fact that this plant will not flourish on any of the surrounding islands. Many have been planted on other islands, but they merely vegetate, and are widely different in appearance from the splendid plants of Praslin and Curieuse.

PROPAGATION BY HYBRIDS.

In the autumn of 1838, a male bird, the produce of a Goldfinch and a hen Canary bird, escaped from my aviary, and was not seen again until the following spring, when we were agreeably surprised by the re-appearance of our lost favourite in company with a Goldfinch. As the pair were inseparable, we at once suspected that they had mated, and in a few days our suspicions were confirmed by seeing them feed each other and collect materials for building. By watching their movements we soon discovered their nest in a cedar-tree near the aviary. In due time four eggs were laid, which I carefully removed and placed under a Canary bird; they however all proved abortive. In a few days after this disappointment a second nest was built by them in the same tree, which we left undisturbed, and the result was favourable; five birds were hatched, which I took from the nest when about ten days old and brought up by hand; of this number two cocks and two hens are still living.

I am aware that hybrids in a state of captivity and restraint have not unfrequently proved prolific when brought to pair with a mate of either of their parent stocks; but I do not remember that I ever heard an instance of an animal of pure breed in a wild and unrestrained condition by choice selecting an hybrid mate.

The following are the results of my experiments made during this spring and summer.

Early in the spring I paired one of these young cock birds (which I have described as being three parts Goldfinches to one part Canary bird) with a hen Canary; a nest was soon made and three eggs laid; the cock bird, however, destroyed the nest, but I succeeded in saving the eggs, and placed them under a Canary bird: of this number one young bird was hatched, which is now full-fledged and in good health. After this partial failure a second nest was built, which shared the fate of the former one; I then removed the cock bird and turned him into the aviary, when he almost immediately selected another Canary bird as his mate. Upon my putting this pair into a breeding-cage a nest was formed in less than a week, and four eggs were laid; I had now taken the precaution to line the nest basket

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